CROSSFEED

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Support Equipment

Working on the Chains... Gang

By AMCS (AM/SW) Cheryl Poirier

Chains, chains and more chains: Clean and oil, rinse, and repeat every 30 days. In between, I hope you have them all accounted for, unless, of course, you are in the last week of a six-month cruise. Then it's a mad scramble to find chains to replace the ones that have been "borrowed" over the last six months. As a young airman working on the flight line, one of my least favorite jobs was cleaning and re-oiling chains. I know all the junior Sailors and Marines reading this article, unlike this author, consider chain maintenance a favorite and sought-after job.

During Safety Center survey trips, I look at the Line/SE and SE PMS. Inevitably, there are problems with tie-down chains. Here are discrepancies I often find:

✍ TD-1As and TD-1Bs combined in the same lot. A "lot" is a set of like-items categorized into identical groups. TD-1As and -Bs have different part numbers and different configurations; therefore, they must be grouped into separate lots.

✍ Incorrect marking of tie-down chains. Chains should be marked on the tension nut and should include the organizational code. Too often, I find chains with different organizational codes or two (or three) serial numbers stamped on the tension nut. Ensure the markings are correct and legible.

✍ Chains in disrepair or not stored properly. I have found chains stored in shop lockers and/or stored in ammo cans unsealed and covered with rust. I also have found chains in use that have broken springs and other worn parts. The NA 17-1-537 WP 12 specifies that "To ensure they remain in serviceable condition, tie-downs shall be inspected either prior to each use or at least every 30 days, whichever occurs first." Keep your chains organized and in good condition!

✍ OPNAV 4790/51 records contain incorrect information or are in the incorrect format. Some of the /51 record discrepancies I have found are:

- TD-1B /51 records that have SECs for TD-1As incorporated.
- TD-1A /51 records that do not have all the requisite SECs (2487, 2699, and 4455) incorporated. SEC 2699 & 4455 also have amendments.
- Lot numbers not highlighted in yellow and the first serial number of the lot (in the serial number block) not written in pencil.
- Chain serial numbers in section VI, part B (Miscellaneous History Section), not written in pencil.
- NALDA/TDSA NAT 02 verifications not completed on an annual basis or, in some cases, never performed.
- Chain serial numbers not annotated after the periodic maintenance inspection in the discrepancy block on PM MAFs.
- Chains in Type II preservation not re-preserved on the re-preservation date. Chains in preservation not barrier papered and placarded with the necessary information. Ensure your chains are preserved in accordance with the NA 17-1-125 manual.

When in doubt, consult the NAMP and other directives. NAMP, Volume V, Chapter 18, covers SE PMS and contains all the information regarding OPNAV 4790/51 records. NA 17-1-125 and 537 contain information on chain upkeep and preservation. Keep your records current and correct and your chains in good working condition. If it's done right, what you tie down will stay down.

Senior Chief Poirier is a maintenance analyst at Naval Safety Center.

Tool Control

Bah Humbug, Hydraulic Contamination Control at Its Finest

By AMC(AW) Paul Hofstad

So, you think you've seen everything? Well, I, in no way, want to discourage any maintainer from having the Christmas spirit, but using RFI hydraulic components, hydraulic petri dishes, and consumable tools as Christmas-tree ornaments goes way beyond Christmas spirit. In my book, it shows both a lack of leadership and a lack of basic fundamentals in aviation maintenance. The following items are just some of the objects found on the tree in the accompanying photo:

- A consumable RFI hydraulic component (as the Christmas-tree topper)
- Consumable tools, such as wire brushes and folding black knives (as Christmas-tree ornaments)
- Petri dishes used in hydraulic sampling kits (as Christmas-tree ornaments)
- Flash light bulbs (as Christmas-tree ornaments)

As supervisors, we need to take off the blinders and see what is going on around us. In this case, the lead supervisor said that he walked by this tree every day at least 20 times in his workcenter and never noticed what was on it. The leadership was so focused in getting tasks completed that they did not pay attention to their surroundings. Not only does this picture speak volumes about the command's hydraulic contamination-control program, it also demonstrates their attitude toward tool control and the control of consumables. Don't wait for a mishap to occur before you ask the all-important question, "Why did it happen?"

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Logs and Records

Curing Documentation Ills

By SSgt. Van Jones

It's 0930 on a Monday morning, and you are going to be inspected by AIRLANT/AIRPAC. The inspector has noticed that you're missing a few recurring inspections that need to be logged on the inspection pages in your aircraft/engine logbooks. Obviously you counseled your logs and records personnel many times about ensuring maintenance actions/inspections are documented, right? To better inform and, in this case, to reiterate documenting inspection requirements, allow me to help you.

While reviewing different aircraft logbooks as part of surveys, I've noticed that the "art" of documenting maintenance inspections has fallen a little behind. First, you will find that most of your NALCOMIS scheduled inspection reports have inspection data that was initiated from these very same documented inspection pages in the aircraft logbook and

associated AESR (Aeronautical Equipment Service Record). That foot alone may be reason enough to ensure the inspections are logged on time, separately, and sequentially. As a refresher to those logs and records personnel out there, ensure you have an inspection page for each type inspection in your aircraft/engine logbook.

When documenting inspection pages, the three most commonly found are phase, conditional, and special. Let's look at each inspection. The phase inspection is a series of related inspections performed at specific intervals; these intervals usually are separated by flight hours (i.e., 150H, 200H, etc.) Conditional inspections result from over-limit conditions that happened against the aircraft or circumstances, which create administrative requirements (i.e., predeployment, post-deployment inspections). Special inspections have a prescribed interval; these intervals, for the most part, are made up of flight hours, operating hours, cycles, and events.

Once you have reviewed your logbooks and have ensured all inspection pages are accounted for, you need to ensure that all inspections are logged where applicable. Some recurring inspections may need to be documented on an SRC/EHR card of an item, thus documenting when the last inspection was completed on that item. A question that many different logs and records personnel have concerns SRC cards without an inspection section on the card. "Where do we log the inspection once completed?" they ask. I recommend first contacting your type wing to see where they want you to document recurring inspections. If you don't get an answer there, I recommend contacting your TYCOM or just logging the inspection on the back of the SRC card in the overhaul section. That action should suffice for logging the last recurring inspection on that item.

The last subject I would like to cover is implementing a local SOP for tracking, reviewing, and logging inspections in aircraft/engine logbooks. This local SOP should be tailored to how the logs-and-records workcenter wants to conduct business for that particular squadron. As long as all 4790.2 inspection-record requirements are met, the local SOP can add to the documenting inspection process. For the most part, a little more attention to detail can go a long way in ensuring all inspections are accounted for, tracked and are not past due.

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Technical Directives

By AZCS(AW) Stephen Miller

As a maintenance analyst at the Naval Safety Center, I have found a trend concerning discrepancies in tracking and annotating technical directives across all types of aircraft platforms. I don't know if it's a lack of knowledge or being overwhelmed by the technical-directive program.

Some common discrepancies I'm finding are:

- List 02s and 04s not being updated when the technical directive is signed off in NALCOMIS. Fix: Logs and Records needs to ensure logbook entries are prepared properly, with associated documentation per OPNAVINST 4790.2H, Vol. V, par. 11.3J.(1)F.
- ALSS Technical Directive listing (NAT 04) is older than three months. Fix: At the beginning of each quarter, QA shall distribute ALSS TD listing (NAT 04) per OPNAVINST 4790.2H, Vol. V, par. 11.3G.(5).
- Technical directives that affect a component with an ASR/SRC/MSR/EHR are not recorded properly on their respective forms. Fix: TDs that affect a component with an ASR/SRC/MSR/EHR card needs to be logged on the applicable technical directive OPNAV form 4790.24A, with TD identification and notation to refer to the applicable card (no signature is required). The complete information regarding the TD is entered on the appropriate card, with authenticating signature, per OPNAVINST 4790.2H, Vol. I, par. 13.3.5A(3).
- Upon receipt and transfer of all aircraft, engines, SE, components, AWSE, and ALSS are not screened correctly to ensure all applicable technical directives are incorporated. Fix: Review the NAVAIR 00-500C, NALDA TDSA (NAT 02), ALSS TD Listing (NAT 04) and Weekly Summary for Issued Interim Technical Directives for TD deficiencies, per OPNAVINST 4790.2H, Vol. V, par. 11.3J(2) and 11.3K.

The majority of these discrepancies shows lack of "attention to detail" and not using the proper procedures for validating technical directives. The program manager needs to ensure all technical-directive processes are in accordance with the OPNAVINST 4790.2H, Vol. V, par. 11.3E.

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Secrets to Maintenance Success

By CWO2 John Kukahiko

Naval Safety Center personnel travel throughout the world to conduct safety surveys on Navy and Marine Corps aviation squadrons and AIMD/MALS. Even though we may find various maintenance programs that stray from instructions and directives, we also find many maintenance departments that operate efficiently and effectively. Here are some of these "Best Practices":

Photo by Matthew J. Thomas

1. **They go by the book.** People who've conducted extensive research, development and system testing wrote our publications, instructions, and directives. They've written specific procedures to follow to properly (and safely) operate and maintain aircraft systems and equipment. Some procedures were "written in blood" or developed after an unsafe practice caused a mishap and someone paid for it with their life.

Use the book when doing maintenance and teaching others. Follow technical procedures and specifications and establish an environment that supports a by-the-book culture.

2. **They have knowledgeable and dedicated program managers.** Most programs require the manager to attend training to ensure they know how to run the program and what references are available for guidance. The new program manager should receive pass-down from the current program manager whenever possible. Gapped billets often lead to a breakdown in the program. Maintenance program managers should have the initiative and dedication to ensure their programs (as well as the entire maintenance department) are in compliance with current instructions and directives. Therefore, these individuals should possess the leadership, management and technical skills; they must be the right person in the right job.

3. **Chiefs stay involved with work-center programs and provide constant guidance.** We all "ask the chief" for information, help or guidance throughout everyday routines. They have the experience and knowledge to answer questions, mentor, or point us in the right direction. Chiefs should stay involved with their work-center's effort to ensure LPO/supervisors and program managers effectively manage their shops, workloads and programs and to provide that extra measure of guidance when necessary.

4. **There is effective communication up and down the chain of command.** From the weekly operations and maintenance meetings to the work-center shift turnovers, information must be passed effectively so everyone knows in what direction to go to accomplish a mission or task. Leaders/supervisors should take the time to ensure their personnel understand the assigned task and to encourage feedback. Maintainers should ensure they understand what needs to be done and to ask questions if necessary. The effective pass-down of maintenance information, at all levels within the command, is critical to each unit's success.

Good units foster a climate that doesn't sanction shortcuts and procedure violations, even during those "Get it done now!" times that we all face from time to time.

These are just a few reasons why many squadrons do well in accomplishing their maintenance evolutions and managing their programs effectively and efficiently. Leadership involvement remains one of the most critical aspects of a successful maintenance department.

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